

ABSTRACT

5 A method is provided for the detection of defects on a semiconductor wafer by checking individual pixels on the wafer, collecting the signature of each pixel, defined by the way in which it responds to the light of a scanning beam, and determining whether the signature is that of a faultless pixel or of a pixel that is defective or suspect to be defective. An apparatus is also provided for the determination of such defects, which comprises a stage for supporting a wafer, a laser source generating a beam that is directed onto the wafer, collecting optics and photoelectric sensors for collecting the laser light scattered by the wafer in a number of directions and generating corresponding analog signals, an A/D converter deriving from said signals digital components defining pixel signatures, and selection systems for identifying the signatures of
10 suspect pixels and verifying whether the suspect pixels are indeed defective.
15